

# 2019-01-11 Semantics Meeting (sdo)

## Meeting Details

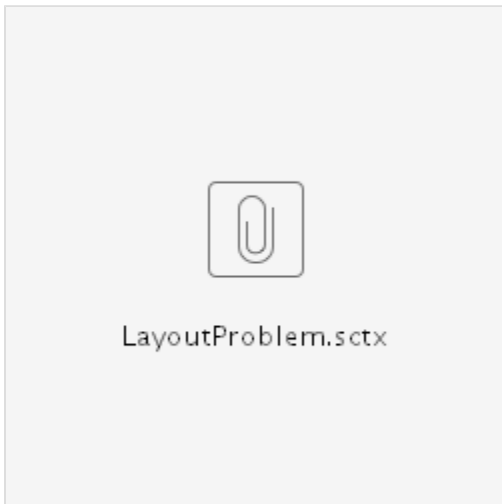
- Moderator: rvh
- Protocol: sdo
- Attendees:
  - rvh
  - als
  - ssm
  - cds
  - tammo
  - lgr
  - merlin
  - nir
  - sdo
  - eren
- Start: 09:45
- End: 10:50

## Agenda

- Semantic of SCADE and SCCharts (lgr)
- Tooling for side by side view of compilation snapshots (ssm)

## Semantic of SCADE and SCCharts (lgr)

- order of statements is relevant for statements



- there is no update view in dataflow in kieler (no +=, since only *ir* was desired)
- it is possible to design more models in KIELER than in SCADE
- SCADE has map and fold operators (for arrays), since Lustre has map and fold operations
- SCADE has structs and a struct operator to decompose struct in dataflow
  - in control flow . operator can be used for this
- Clock example (absents of values)
  - valued signals have to be used for this
  - boolean valued signals exist
  - booleans should be used for clocks
  - boolean valued signals should be used for streams (which have a clock)
  - clock operations have to be enabled in SCADE (default no clock operations)
  - using signals for clocks makes the transformation more complex
- incremental update in dataflow (sequential edge)
  - feedback edge in dataflow is no normal dataflow edge (does not exist in SCADE or lustre)
  - M label, visualization is to be discussed

For the thesis it is not necessary that every aspect is implemented, but the semantic should be discussed.



ClockExampleSignals.sctx



IR.sctx



IR.sctx



IUR.sctx



Counter1.sctx



Counter1.sctx



Counter2.sctx

## **Tooling for side by side view of compilation snapshots (ssm)**

- side by side view is possible for all snapshots via ctrl enabled by kighd (does not work well with incremental update)